

Claims:

1. A method of operating a computer entity comprising a plurality of data storage devices, to install at least one said data storage device, said method comprising the steps of:

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checking a first said data storage device for a digital signature;

10 checking a second said data storage device for a digital signature;

15 determining whether said first and second digital signatures match each other; and

20 if a discrepancy in signatures is found between said first and second data storage devices, setting digital signatures of said first and second data storage devices to be in a self consistent set.

25 2. The method as claimed in claim 1, further comprising the step of re-setting said computer entity to a known state.

30 3. The method as claimed in claim 2, wherein if:

25 said first data storage device contains an operating system, and a digital signature is found on said first data storage device; and

30 no digital signature is found on said second data storage device;

then said step of re-setting said computer entity to a known operational state comprises:

35 re-building a primary operating system on said first data storage device; and

40 deleting data from said second data storage device.

4. The method as claimed in claim 2, wherein:

5 said first data storage device comprises a system data storage device
storing operating system data;

10 said second data storage device is assigned for storage of application data;
and

15 10 said step of re-setting said computer entity to a known state comprises:

20 15 deleting data on said second data storage device; and

25 20 applying a new digital signature to said first data storage device and said
second data storage device, so that said first and second data storage devices
are marked with digital signatures in a matching set.

5. The method as claimed in claim 2, wherein if:

20 25 said first data storage device contains a digital signature;

30 30 said second data storage device contains a digital signature; and

35 35 said digital signature of said first data storage device does not match a said
digital signature of said second data storage device,

40 40 then said step of re-setting computer entity to a known state comprises:

45 45 re-setting said computer entity with deletion of application data generated
30 as a result of at least one application program.

6. The method as claimed in claim 5, wherein said step of re-setting said computer entity with deletion of application data comprises the steps of:

under control of a secondary emergency operating system;

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overwriting a primary operating system partition of said first data storage device, to delete a previous set of primary operating system files;

10 erasing a content of a secondary data partition on said second data storage device;

15 erasing a content of a primary data partition on said first data storage device;

20 recreating a set of data partitions to a first known partition configuration on said first data storage device;

recreating a set of data partitions to a second known partition configuration on said second data storage device;

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restoring a set of application configuration settings from stored application configuration settings in a user system archive partition of said first data storage device.

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7. The method as claimed in claim 6, wherein:

if said stored application configuration settings in said user system archive partition are corrupt, then said step of resetting further comprises step of:

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setting a set of user configuration settings to default values.

8. The method as claimed in claim 2, wherein said step of re-setting said computer entity to a known state comprises:

5 checking whether a partition structure on said second data storage device matches an expected partition structure;

10 if said partition structure does not match said expected partition structure, then erasing said second data storage device and formatting said second data storage device into a known partition structure.

15 9. The method as claimed in claim 7, further comprising the step of:

20 restoring default application data from a partition area of said first data storage device onto said formatted known partition structure of said second data storage device.

25 10. The method as claimed in claim 8, wherein said known partition structure comprises a single partition.

30 11. The method as claimed in any of claims 6 to 9 further comprising the step of generating a unique digital disk signature; and

35 writing said unique digital disk signature to said first data storage device and said second data storage device.

25 12. A data storage device comprising:

40 a data storage medium, said data storage medium pre-configured for storage of code data comprising:

45 a primary operating system;

a secondary operating system;

a copy of said primary operating system; and

5 an installation component for automatically installing said data storage device into a computer entity.

10 13. The data storage device as claimed in claim 12, wherein said installation component is configured to install said data storage device either as a system data storage device comprising a plurality of operating system files, or, as a bulk data storage device for storing application data generated from applications of a computer entity.

15 14. An installation component for automatically installing a data storage device into a computer entity, said installation component comprising:

means for checking a digital signature on a plurality of data storage device;

20 means for determining whether a plurality of said digital signatures read from a plurality of said data storage devices match each other; and

means for determining a re-set mode of said computer entity, to restore said computer entity to a known state.

25 15. A method of operating a computer entity comprising a plurality of data storage devices, wherein:

a first said data storage device is designated as a system data storage device, which stores operating system files;

a second said data storage device is designated as a bulk data storage device, for storing application data generated by one or more applications of a said computer entity;

5 said method comprising the steps of:

10 checking each of said plurality of data storage devices to see if said data storage device has been replaced following a last re-set operation of said computer entity; and

15 if a said data storage device is detected, which has been replaced since a last re-set operation of said computer entity, then resetting said computer entity to a known state.

20 16. An installation procedure for installing a data storage device into a computer entity configured to contain a plurality of data storage devices, said installation procedure comprising the steps of:

25 (i) introducing into said computer entity a digital storage device loaded with at least one operating system, and an installation component for installing said data storage device into said computer entity;

30 (ii) checking each said data storage device of said computer entity for a signature;

35 (iii) determining whether all said signatures of said data storage devices are in a matching set;

40 (iv) if said plurality of signatures are determined not to be in a matching set, then determining which data storage devices are already designated as system data storage devices, containing an operating system and which data storage devices are already designated as for storing bulk data;

(v) depending on the result of step (iv), designating said introduced data storage device as a system data storage device or a bulk data data storage device, so that within said plurality of data storage devices there exists at least 5 one system data storage device and at least one bulk data storage device; and

(vi) re-setting said computer entity to a known state.

17. The procedure as claimed in claim 16, where:

10 if in step (v) said introduced data storage device is designated as a system data storage device, performing the steps of:

15 deleting all files present in a secondary data partition of a said bulk data data storage device;

20 creating new disk signatures on said system data storage device.

18. The procedure as claimed in claim 16, wherein if in said step (v), said introduced data storage device is designated as a bulk data storage device, then performing further steps as follows:

rebuilding a primary operating system on a system data storage device;

25 returning application data on said system data storage device and said bulk data data storage device to a known default state.